

IN THE CLAIMS:

Please find below a listing of all pending claims. The statuses of the claims are set forth in parentheses.

1-16.(previously canceled)

17.(previously presented) A central processing unit comprising:

- an input unit in the central processing unit to input a command that is executed by using a firmware or a logic circuit;

- a storing unit in the central processing unit to store a plurality of operation modes and a plurality of sets of commands, each one of the operation mode corresponding to a different set of commands;

- a retaining unit in the central processing unit to retain a plurality sets of resources to be used with the firmware or the logic circuit, a different set of the resources being available when each one of the operation modes is set;

- a determining unit in the central processing unit to determine whether the input command is included or not in the set of commands corresponding to a current operation mode;

- an access control unit in the central processing unit to refine the resources retained by the retaining unit to an accessible set of resources corresponding to the current operation mode, and to determine, when the input command is included in the set of commands corresponding to the current operation mode, whether a necessary resource to execute the input command is included or not in the accessible set of resources; and

- an execution unit in the central processing unit to acquire all of the necessary resource from the accessible set of resources obtained by the access control unit, and to execute the input command by using the firmware or the logic circuit in conjunction with the necessary resource acquired.

18.(previously presented) The central processing unit according to claim 17, wherein

- the input unit inputs an operation mode adding command for storing a new operation mode in the storing unit, and

- the execution unit makes the storing unit store the new operation mode, when the operation mode adding command is included in the set of commands corresponding to the current operation mode.

19.(previously presented) The central processing unit according to claim 18, wherein the execution unit makes the storing unit store the new operation mode, only when a number of commands corresponding to the new operation mode is

greater than a number of commands corresponding to any one of the operation modes stored in the storing unit.

20.(previously presented) The central processing unit according to claim 17, wherein

- the input unit inputs a firmware acquiring command for acquiring a new firmware that is used to execute a command, and

- the execution unit acquires the new firmware from outside, when the firmware acquiring command is included in the set of commands corresponding to the current operation mode.

21.(previously presented) The central processing unit according to claim 20, wherein the execution unit acquires an encrypted firmware and decrypts the encrypted firmware.

22.(previously presented) The central processing unit according to claim 20, wherein the execution unit acquires a digitally signed firmware and authenticates the firmware.

23.(previously canceled)

24.(previously presented) The central processing unit according to claim 17, further comprising:

- an operation mode deleting unit to delete a specified operation mode from the storing unit; and

- a firmware deleting unit to delete a firmware corresponding to the operation mode deleted.

25.(previously presented) The central processing unit according to claim 17, further comprising:

- an execution request unit to request an external emulator to execute the input command, when the input command is not included in the set of commands corresponding to the current operation mode.

26.(previously presented) The central processing unit according to claim 17, wherein

- the input unit inputs a logic circuit data acquiring command for acquiring a logic circuit data to generate a new logic circuit that is used to execute a command, and

- the execution unit acquires the logic circuit data from outside, when the

logic circuit data acquiring command is included in the set of commands corresponding to the current operation mode, and generates the new logic circuit based on the logic circuit data acquired.

27.(previously presented) A method for managing a plurality of operating modes comprising:

- inputting a command to be executed by using a firmware or a logic circuit;
- determining, using a central processing unit, whether the input command is included in a set of commands corresponding to a current operation mode, where each one of the operation modes corresponds to a different set of commands and is stored in a storing unit in the central processing unit, and a different set of resources required for executing the commands that are available when the each one of the operation modes is set, the resources being retained in a retaining unit in the central processing unit;

- refining, using the central processing unit, the resources retained in the retaining unit in the central processing unit to an accessible set of resources corresponding to the current operation mode;

- determining, using the central processing unit, whether a necessary resource to execute the input command is included or not in the accessible set of resources, when the input command is included in the set of commands corresponding to the current operation mode;

- acquiring, using the central processing unit, all of the necessary resource from the accessible set of resources retained in the retaining unit when the necessary resource is included in the accessible set of resources; and

- executing the input command by using the firmware or the logic circuit in conjunction with the necessary resource acquired.

28.(previously presented) A computer-readable recording medium that stores a computer program for managing a plurality of operating modes, the computer program makes a computer execute:

- inputting a command to be executed by using a firmware or a logic circuit;
- determining whether the input command is included or not in a set of commands corresponding to a current operation mode, where each one of the operation modes corresponds to a different set of commands and is stored in a storing unit in a central processing unit, and a different set of resources required for executing the commands that are available when the each one of the operation modes is set, the resources being retained in a retaining unit in the central processing unit;

- refining the resources retained in the retaining unit in the central processing unit to an accessible set of resources corresponding to the current

operation mode;

determining whether a necessary resource to execute the input command is included or not in the accessible set of resources, when the input command is included in the set of commands corresponding to the current operation mode;

acquiring all of the necessary resource from the accessible set of resources retained in the retaining unit when the necessary resource is included in the accessible set of resources; and

executing the input command by using the firmware or the logic circuit in conjunction with the necessary resource acquired.

29.(previously presented) The computer-readable recording medium according to claim 28, wherein

the inputting includes inputting an operation mode adding command for storing a new operation mode in a storing unit that stores the operation modes, and

the executing includes making the storing unit store the new operation mode, when the operation mode adding command is included in the set of commands corresponding to the current operation mode.

30.(previously presented) The computer-readable recording medium according to claim 29, wherein the executing includes making the storing unit store the new operation mode, only when a number of commands corresponding to the new operation mode is greater than a number of commands corresponding to any one of the operation modes stored in the storing unit.

31.(previously presented) The computer-readable recording medium according to claim 28, wherein

the inputting includes inputting a firmware acquiring command for acquiring a new firmware that is used to execute a command, and

the executing includes acquiring the new firmware from outside, when the firmware acquiring command is included in the set of commands corresponding to the current operation mode.

32.(previously presented) The computer-readable recording medium according to claim 31, wherein the executing includes acquiring an encrypted firmware and decrypting the encrypted firmware.

33.(previously presented) The computer-readable recording medium according to claim 31, wherein the executing includes acquiring a digitally signed firmware and authenticating the firmware.

34.(previously canceled)

35.(previously presented) The computer-readable recording medium according to claim 28, the computer program further makes the computer execute:

deleting a specified operation mode from a storing unit that stores the operation modes; and

deleting a firmware corresponding to the operation mode deleted.

36.(previously presented) The computer-readable recording medium according to claim 28, the computer program further makes the computer execute requesting an external emulator to execute the input command, when the input command is not included in the set of commands corresponding to the current operation mode.